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Leveraging Healthcare for the Greater Good: Lessons Learned from the National Centers of Excellence in Women's Health

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ABSTRACT

The creation of the National Centers of Excellence in Women's Health (CoE) program in 1996 by the Office on Women's Health, Department of Health and Human Services, included the stipulation that each institution awarded a CoE contribute at least a 25% match for the federal funds. Even the combination of these two sources of monies was insufficient for each CoE to accomplish its goals, however, so leveraging funds became necessary for each CoE to function effectively. The forms of leveraging varied from CoE to CoE, in part as a result of the institutional environment and the unique possibilities each permitted and in part as a result of the creativity of the leaders of the CoEs. This paper describes the concepts and some applications of leveraging in the setting of the CoEs, which might be applicable to other settings as well.

INTRODUCTION

The National Centers of Excellence in Women's Health (CoE) program, initiated by the Office on Women's Health (OWH) within the Department of Health and Human Services (DHHS) in 1996, was developed to provide state-of-the-art, comprehensive, and integrated healthcare services, multidisciplinary research, and public and healthcare professional education targeted toward the special needs of women, including underserved and minority women. These Centers serve as active forces in their communities and across the nation to address and provide for the healthcare needs of women. There are currently 15 National Centers of Excellence in Women's Health (Table 1) located at academic institutions in different areas of the country, which serve as demonstration models for the nation. The Centers are developing new models for women's healthcare that are setting standards beyond what is traditionally offered at hospital-spon-

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Table 1. National Centers of Excellence in Women's Health[a]

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University of California at Los Angeles, Los Angeles, CA. Phone: (800) 825-2631; website: *http://womenshealth.med.ucla.edu/*
University of California, San Francisco, San Francisco, CA. Phone: (415) 353-7502; website: *http://itsa.ucsf.edu/~ucsfcoe/*
Harvard University, Boston, MA. Phone: (617) 732-8798; website: http://*www.hmcnet.harvard.edu/coe/*
University of Illinois at Chicago, Chicago, IL. Phone: (312) 413-1924; website: *http://www.uic.edu/orgs/womenshealth/*
Indiana University School of Medicine, Indianapolis, IN. Phone: (317) 274-2754; website: *http://www.iupui.edu/~womenhlt/*
Magee-Women's Hospital, Pittsburgh, PA. Phone: (412) 641-1141; website: *http://www.magee.edu/cewh2.htm*
MCP Hahnemann University, Philadelphia, PA. Phone: (215) 842-7041; website *http://www.auhs.edu/institutes/iwh/coe.html*
University of Michigan Health System, Ann Arbor, MI. Phone: (734) 936-9837; website: *http://www.med.umich.edu/whrc/ctr.excel.html*
University of Pennsylvania, Philadelphia, PA. Phone: (215) 573-3569; website: *http://www.obgyn.upenn.edu/cewh/*
University of Puerto Rico, San Juan, PR. Phone: 787-753-0090; website: *http://www.rem.upr.edu/2klwhc/*
Tulane and Xavier Universities of Louisiana, New Orleans, LA. Phone: (704) 588-5100; website: *http://www.tuxcoe.tulane.edu*
Wake Forest University Baptist Medical Center, Winston-Salem, NC. Phone: (336) 713-4220; website: *http://www.wfubmc.edu/women/*
University of Washington, Seattle, Seattle, WA. Phone: (206) 598-8986; website: *www.depts.washington.edu/~uw98coe/*
University of Wisconsin-Madison, Madison, WI. Phone: (608) 267-5566; website: *http://www.womenshealth.wisc.edu/*

[a]The University of Maryland, Ohio State University, and Yale University are no longer CoEs.

sored women's healthcare centers. The unique feature of the CoE program has been the way it has brought together the disparate set of women's health activities that take place in academic health centers: linking together women's health research, medical education, clinical services, community outreach, and leadership development for women in academic medicine to create a more dynamic and informed system of care. The primary role of the CoEs has been to unite women's health activities and programs, promote multidisciplinary and cross-departmental collaborations, and institutionalize a more integrative approach to women's health in academic health centers. The success of the CoE model has been rooted in this integrative approach.

The CoE program recognizes that advances in women's health require transformed institutions and a larger role for women as decisionmakers in healthcare and health policy. The CoEs are increasing resources for women to take an active role in promoting their own health by developing women's health information and resource centers, culturally sensitive programs, and partnerships with community-based organizations. As a result, CoEs are reaching a more diverse population of women than hospital-sponsored clinical women's health centers, including more women of color and more women who are postreproductive age.[1]

LEVERAGE

i. The action or mechanical advantage of a lever;
ii. Positional advantage;
iii. The use of credit or borrowed funds to improve one's speculative capacity.

There is a growing recognition by many organizations, including federal and state governments, industry, charities, and healthcare institutions, that a relatively small dollar investment in an area of public concern may attract others willing to support a worthy healthcare goal. The outcome is a much greater product than would have resulted if the goal had been underwritten by a single source. This paper first examines the premise of leveraging to create a desirable end point, the creation of an interdisciplinary women's heathcare center that integrates clinical care with education, research, and community involvement. This model is particularly relevant, as leveraging is the core strategy underlying the creation of the CoEs by the OWH within the DHHS. We demon-

strate the actual results to date of this leveraging experiment in practice in the CoEs.

THE TARGET

For leveraging to be successful, there must be an end point or product considered by a large portion of the relevant community to be highly desirable yet unlikely to be accomplished without external help. The enhancement of women's healthcare has all of these properties.

There is a strong perception in the medical and lay communities that women have been excluded from many routine healthcare activities. They are underrepresented in clinical research trials. The hormonal states of women have often been considered confounding factors impeding good laboratory research and excluded from the experimental design wherever possible. Research into gender-unique or gender-prevalent diseases has been poorly funded compared with illnesses more common in men. Women in most locales receive routine healthcare in a fragmented fashion from providers in multiple disciplines. As a result, they must commit several days a year to nonurgent physician care—if they bother to pursue preventive healthcare at all. This fragmentation, although acceptable in the past, now occurs in a society that is progressively time poor. Women have become more vocal about their dissatisfaction and more likely to be in a position to have an impact on their needs than in the past. All of these elements support the desirability of enhancing teaching, research, and the delivery of women's healthcare.

However, teaching and research in many, if not most, academic healthcare centers have been underwritten to some extent, for the last 30 years or so by the revenue generated from academic clinical practice. Although this is a worthy investment, recent and ongoing changes in healthcare financing in the United States threaten the existence of many academic medical centers, forcing them to evaluate their investments in the short term as a return on the dollar rather than as a medical desirability. Further, primary care in and of itself is typically considered a money loser for the academic healthcare center. Thus, new models for the delivery of women's healthcare are unlikely to be underwritten by the academic medical centers themselves in the absence of a motivating external force. These factors combine to create a major barrier to change.

The National Centers of Excellence in Women's Health program was designed to address the fragmentation in women's health services, among internal medicine, family practice, obstetrics/gynecology, and specialty care and other health education and support services. The program is built on the premise that the integration of women's health activities across the academic health center would result in better outcomes for patients as well as a more informed and coordinated system of research and training.

THE PROCESS

Creating a product

The first step is the creation of a series of core products of interest to a particular party—the government, industry, a charity, or the healthcare center. On a larger level, this need resulted in the establishment of the CoE program. One of the intents was to create a designation that in and of itself had value (typically for marketing) to the recipient institution.

The model academic CoE has multiple potential products for the prospective investor. For the school of medicine as the investor, the CoE may serve as the ideal vehicle for coordinating the education of medical students in women's healthcare using a problem-oriented system. For example, the MCP Hahnemann CoE received a Fund for the Improvement of Post-Secondary Education (FIPSE) Dissemination Project Grant from the U.S. Department of Education to mentor three academic health centers (University of Kentucky—Lexington, Louisiana State University—New Orleans, and Case Western Reserve University—Cleveland) in replicating the CoE curriculum model in their medical schools. Additionally, the University of Pittsburgh Magee–Women's Hospital CoE spearheaded the development of a 4-year concentration in women's health for medical students that includes community service, scholarship, mentorship, and didactic components.

The CoE model also can help coordinate research by fostering contacts among those investigators in disparate fields who may be unaware of particular funding opportunities in women's

health or who have not considered a gender or hormonal slant to their current studies. For example, interdisciplinary roundtables sponsored by the University of Illinois at Chicago CoE have stimulated submission of proposals totaling more than $2.6 million to the National Institutes of Health (NIH) and the Illinois Department of Public Health. Additionally, the University of Wisconsin CoE received a National Institute on Aging-funded Women's Health and Aging Training Grant for postdoctoral research training.

To the industrial investor, the CoE model provides a flagship marriage of high-end researchers and the clinical apparatus to develop, test, and promote new products while receiving valuable publicity as a good corporate citizen. For example, the University of Michigan CoE received a grant from Parke-Davis to facilitate the development of a registry and electronic database of women interested in participating in clinical trials. Over 600 women have been registered.

To the strategically thinking academic hospital, a CoE can provide a multidisciplinary clinical unit that, although it may not be profitable in and of itself, serves as a loss leader, recruiting patients to more profitable activities. For example, the University of Illinois at Chicago CoE is collaborating with the College of Pharmacy's NIH-funded Center for Dietary Supplements Research on Botanicals. This center includes a research component on botanicals traditionally used for women's health, including menopausal symptoms. Patients for clinical trials associated with this program will come from the CoE clinical care center.

To the federal and state governments, these CoEs can become the community spokespersons for desired projects and for the dissemination of important information necessary to activate specific healthcare policy. For example, the University of Pennsylvania CoE, in collaboration with the National Women's Law Center and the Lewin Group, developed the first Women's Health National and State-by-State Report Card to track the status of women's health, healthcare, and health policy.

Creating a sense of ownership for the investors

Each of the products must be identifiable and have substance that will allow potential investors to see the reward and receive accolades for their participation and largesse. They must believe that the quality of the product is a reflection of their own unit. This sense of ownership is perhaps best provided by prominently displaying their name in a number of venues and soliciting their feedback for improvements.

The institutional commitment can be an obstacle but has extended far beyond marketing considerations. The institutional buy-in for the CoE program has required a significant investment of money and resources as well as a philosophical commitment to women's health. Additionally, the backing of top administrators or senior faculty, as well as junior faculty and students, has improved the ability for the change necessary to develop the CoEs. Limited resources have required CoEs to build on existing resources, creating linkages among women's health activities, a stronger shared commitment, and ultimately a stronger system of care for women. This has been facilitated from the beginning by the contractual arrangement that the university commit to a 25% cost share so that the CoEs would become self-sustaining over time.

Documenting return

As many of the profitable aspects of participation are based on either intangible benefits or downstream activities, it is essential that the successful enterprise use a sensitive data system. Further, the reward for participation must be visible to the disinterested. It may be as basic as a naming opportunity or the opportunity of working with researchers and healthcare providers affiliated with an academic model for women's health or the chance to promote their particular issue in a larger forum than currently available.

Although the investment of the federal government is relatively small, the CoEs find great value in the national designation and the prestige it provides. The CoEs provide technical assistance to other academic institutions interested in replication of the CoE model at their institutions, and the OWH office receives continual inquiries for future solicitations.

THE SALE

Without question, the greatest challenge in leveraging the designation of a site as a CoE is providing the data necessary to convince potential partners of the rewards for support. For example, it is important to track where the patients are seen, the activities they use, whether or not

they are new to the medical system, and whether there is a change in their families' healthcare providers, and whether they participate in research and, if so, in what types of research. Nowhere is this more important than with the marginally profitable academic hospitals. The needed databases must be able to track the recruitment of new patients to the healthcare system along with any of the pull-through services resulting from their recruitment.

Because women are gatekeepers in most cases for their families' healthcare, the CoEs can influence other family members, especially with respect to patient and community education. For example, a 48-year-old climacteric woman seeks care for symptoms of the menopause and begins hormone replacement therapy (HRT). She comes only because such care would otherwise require three different visits to three different physicians who practice at her local community hospital. At the CoE, she learns about the work of the medical center in coronary artery disease and osteoporosis. She learns that the sun damage to her skin can be treated by a university dermatologist who sees patients at the same location using the same patient record as her other physicians. She is pleased with the facility and convinces her slightly older husband that his coronary angioplasty would be best performed in the academic health center that they had previously considered to be only for the poor and dying. His aged mother keeps him company postoperatively. It is also her first visit to the academic medical center. She falls a short time later and fractures her hip and decides to go to the medical center rather than her local hospital because of the state-of-the-art care received by her extended family there. All three family members inform their friends in the community of the easy access and quality care they received as a result of services originating in the CoE. Thus, praise of the CoE and hospital is spread throughout the community, increasing awareness and patient volume. However, without the database that shows this pull-through activity, the CoE receives credit for only a few outpatient visits necessary to monitor HRT. With the database, the hospital sees a much greater return on its investment, the industry partner knows the true scope of the patient population available to it, and the school of medicine learns how to deploy its limited resources.

It also is important for the CoE with an operational deficit to continue to seek outside revenue, such as that from private corporations or grateful patient donations, to continue to underwrite the beneficial activities of the CoE. The database becomes a list of potential donors already interested in the activities of the CoE.

ASSIGNMENT OF CREDIT

A system of rewards must be created continually to provide value for the investors in the leveraged product. These rewards can range from plaques given to the investors or posted in the clinic for general viewing to the naming of entire units in honor of the investors. The scope of the reward would reflect its size or impact. In the context of the pull-through example of patient care just noted, partial credit for subsequent visits of the proband patient or her family members should be identified for the CoE. Thus, although the CoE might not collect the revenue for the angioplasty or hip pinning, it could receive some relative value units (RVU) based on a novel formula. Only then can the worth of the CoE-like operation be appropriately valued by the healthcare system.

MARKETING TO CREATE A SUSTAINABLE PRODUCT

The products of the CoE, be they clinical services, educational tools, referrals, or new programs, need to be presented as discrete entities to the consumer and the investor alike. They must be identified as resulting from the existence of the CoE, they need to be shared with or advertised to as large an audience as possible, and they need to be reported to other sites, such as community clinics, centers, and facilities, as well as to other academic institutions when possible. The imprimatur of the CoE logo should appear on every program, brochure, letter, announcement, and article that it produces. Every opportunity must be taken or created to imprint the CoE on the public consciousness, through participation in health fairs, presentations of talks and programs, interviews on radio and television and in print, and collaborations with community groups. The CoE must become the preeminent local expert on women's health, to which all queries will be directed. The community should turn to the CoE as the source of accurate, fair, and comprehensive

information and opinion on all aspects of women's health issues.

ADDITIONAL MARKETING APPROACHES

An educated patient is in the best interest of society. Thus, another role of a CoE is to encourage women and their families in the community to use the services the CoE provides, especially visits to the resource center. The resource center provides a multitude of free information, publications, brochures, and videotapes on various health issues facing communities across the nation. CoE consumers can peruse at their leisure information ranging from breast cancer screening to urinary incontinence and bring much of the material back to their communities for family and friends. Accessible Internet services within the CoE are superb marketing tools to encourage those in the community without Internet services to use the resource center for all their health education-related needs. The advantage of visiting the CoE and using its resources is the presence of a knowledgeable staff member to answer any questions and guide a visitor through the Internet. This is an ideal forum for the hospital to bring attention to its own resources.

Through the previously mentioned marketing approaches, imprints on all outgoing CoE literature, visibility, participation at health fairs and other community events, developing and implementing community education programs, and membership on various community advisory boards, the CoE can thrive and become a gateway for women and their families to learn, grow, advance, and seek the healthcare they require. This high level of utilization is essential for a sustainable unit.

The CoE successes are evident. For example, the University of Pennsylvania CoE launched The Health Tip Card project in 1999. Health Tip Cards on various topics are designed with the help of women in the community, using culturally sensitive educational materials. Additionally, comprehensive women's health education and resource centers have been developed by the University of California at Los Angeles CoE, the University of Illinois at Chicago CoE, and the Magee–Women's Hospital at the University of Pittsburgh CoE.

RESULTS TO DATE

The CoEs have indeed delivered the leveraging results, in terms of both finances and recognition, hoped for since their inception. The sources of the funding include the institutions themselves (and not merely the 25% institutional match required by the DHHS/OWH contract), other federal sources, not-for-profit foundations, philanthropists, industrial sources, in-kind donations (e.g., space, furniture, computers), and others. These numbers are substantive and demonstrate that this model has indeed worked, probably beyond the most optimistic visions of the OWH. In the 4 years from September 30, 1996, to September 30, 2000, the CoE program received over $140 million.[2] This includes almost $12 million from OWH itself, approximately $12 million from institutional cost sharing, more than $26 million from additional internal sources (e.g., dollar value for space, salaries, above and beyond the contract-mandated 25% cost share), almost $71 million from external sources (e.g., grants, foundations, private contributions), and more than $21 million received by CoE partners attributable to their relationship with the CoE. In some cases, the leveraged funding has been quite substantial and has provided funding for new initiatives, such as a $7.9 million grant to a school of pharmacy for research on complementary medicine.

Nonfinancial but clearly substantive collateral outcomes derived from the existence of the CoEs include the improvement and expansion of women's health; the inclusion of related women's health issues, such as mental health and alternative medicine approaches, in the medical care setting; improved access to healthcare; inclusion of women's health topics as discrete entities in medical school curricula, sometimes for the first time; and endowment of chairs and lectureships in women's health. Furthermore, the CoEs have leveraged their designations to interest more women in women's health-related fields; to design programs to improve leadership and mentoring for women; to develop an electronic infrastructure to improve dialogue and communications in women's health; to provide wide-ranging community outreach activities, gaining recognition in their communities as important resources and experts in women's health; and to generate outcomes evaluations for women's health interventions.

It should be noted that there is in progress a

2-year, comprehensive national CoE evaluation project. The overall protocol seeks to understand broad organizational issues, including (1) the historical background of each CoE, (2) the missions, goals, and priorities of the CoEs, (3) the CoEs' organizational structure, (4) the process for leadership and decision making, (5) the CoEs' strengths and weaknesses, (6) the internal and external status of the CoEs, (7) the CoEs' access to resources, and (8) the CoEs' activities within the five components of clinical care, research, professional education, leadership development, and community involvement. It is anticipated that the results will underscore the significant impact the CoE designation has had in leveraging resources to enhance women's healthcare.

SUMMARY

Changes in healthcare financing have become a major obstacle to the creation of new and desired products that cannot be shown to be directly profitable. Yet these products have great value to society as a whole or in a subset and in the larger scheme to the medical center. Such products will require a creative approach and the spiritual and financial support of the lay and business community at large to be successful. This support can only be engendered by communication and education of the total value of the operation to all interested parties. Happily, the experiment of the CoEs as such a leveraging entity has been very successful to date in garnering additional funding.

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